IPRL Offshoots

USDA-ARS Invasive Plant Research Laboratory
3205 College Ave., Fort Lauderdale, FL 33314

September 2004

Upcoming Events

28th Annual Florida Aquatic Plant Management Society Training Conference
Oct 17-20, 2004
Deerfield Beach, Florida
www.homestead.com/fapms/meeting.html

14th Annual Cal-IPC Symposium
October 7-9, 2004
Ventura Holiday Inn
Ventura, California
http://www.cal-ipc.org

31st Annual Natural Areas Conference
October 13-16, 2004
Holiday Inn Mart Plaza
Chicago, Ilinois
www.conferences.uiuc.edu/conferences/conference.asp?ID=30

31st Annual Conference on Ecosystems Restoration and Creation
October 28-29, 2004
Crowne Plaza Hotel
Tampa, Florida
www.hccfl.edu/depts/detp/ecoconf.html

More upcoming events on page 9

The process of identifying, testing, rearing, and releasing biological control agents is a long and arduous task. Scientist must address many ecological and environmental issues prior to any release. These same scientists realize that turning loose a seemingly harmless organism could potentially result in a major disaster. Various processes and procedures are in place to ensure that unintended consequences to intended releases do not occur. Many of the processes and procedures take the form of petitions and reports that detail the steps being taken during the identification and testing of potential agents. This report explains the process that scientists use to gain a recommendation for releasing a biological control agent from TAG and permission to release from APHIS.

John Scoles - Editor

How Scientists Gain Approval to Release Biological Control Agents

Before scientists can release a biological control agent into the wild to do its work on an invasive plant, the potential agent must undergo rigorous testing to ensure that it will not harm other organisms. The USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection Quarantine unit (PPQ) controls the release approval process. (The Plant Protection Act of 2000 gives APHIS the authority to regulate “any enemy, antagonist or competitor used to control a plant pest or noxious weed.”) A voluntary multi-agency Technical Advisory Group, or TAG, reviews information provided by the requesting scientist prior to making any recommendation to APHIS concerning the release of an agent. This interagency group’s mission is to advise weed biological

control researchers and provide the PPQ permit unit with recommendations on the proposed action.

Whether or not scientists have identified a candidate biological control agent, they ordinarily submit a proposed host specificity test plant list to TAG. At this early stage of the approval process, TAG will make recommendations on the target weed choice and comment on the proposed test plant list.

In addition to submitting a TAG petition, scientists contact the Department of the Interior to ensure that they consider threatened and endangered species in their test plant list. Receiving input on a weed biological control project at an early stage from the TAG and Department of the Interior can disclose problems or concerns that the scientists can address at an early stage, potentially saving years of delays.

To import a potential weed biological control organism into the United States for host specificity testing, scientists must submit a permit application to the PPQ. It takes four to six weeks from submission of the application to receive a permit. Approved biological control agents must go into an adequate high-security containment facility upon entry into the United States. The IPRL has a 17,000 square foot containment facility in Fort Lauderdale and a 3,000 square foot facility in Gainesville specifically for that purpose.

The Technical Advisory Group for Biological Control Agents of Weeds (TAG)is an independent voluntary committee formed in 1957 to provide advice to researchers. Today, TAG members review petitions for biological control of weeds and provide an exchange of views, information and advice to researchers and those in APHIS responsible for issuing permits for importation, testing, and field release of biological control agents of weeds.

You can find out more about TAG at:

http://www.aphis.usda.gov/ppq/permits/tag/

Release of non-indigenous weed biological control organisms requires compliance with the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). The document required for NEPA compliance is the Environmental Assessment (EA). The EA is a concise public document that provides sufficient evidence and analysis for the PPQ to determine if it can arrive at a finding of “no significant impact” or if the submitting scientist must prepare an environmental impact statement. The EA provides the public with the potential positive and

negative environmental impacts that might occur as a result of the release of a biological control agent into the environment.

The document required for compliance with the ESA is the Biological Assessment (BA). This document goes to the Fish and Wildlife Service for review. The BA typically includes several elements:

- A description of the action under consideration
- A description of the specific area that the action might affect
- A description of any listed species or critical habitat that the action might affect
- A description of the manner in which the action might affect any listed species or critical habitat and an analysis of any cumulative effects
- Relevant reports, including any environmental impact statements or environmental assessments
- Other relevant available information on the action, the affected listed species, or critical habitat

After completing the host specificity testing, the scientist submits a petition for release of the biological control agent to TAG for recommendation. TAG must review and recommend all proposed first-time releases of non-indigenous weed biological control agents.

When the scientist receives a recommendation from TAG for the release of the biological control agent, he or she submits an application requesting release of that agent to the PPQ along with the draft EA and BA. To speed the review process, it is important to submit documents that are as close to completion as possible.

TAG Membership

One representative from each of the following agencies:

USDA, APHIS, National Biological Control Institute
USDA, Agricultural Research Service
USDA, Cooperative State Research, Education, and Extension Service
USDA, Forest Service
USDA, Natural Resources Conservation Service
USDI, Bureau of Land Management
USDI, Bureau of Reclamation
USDI, U.S. Fish and Wildlife Service
USDI, National Park Service
USDI, U.S. Geological Survey
USDI, Bureau of Indian Affairs
US Environmental Protection Agency
DOD, US Army Corps of Engineers

Additional members may include one state or federal government employee from each of the following organizations:

The National Plant Board
The Weed Science Society of America
ARS Biological Control Documentation Center
Other federal agencies expressing interest in participating

Representatives from Canada and Mexico are also invited to attend.

The ESA requires that the applicant consult with the FWS. A formal or informal consultation will satisfy this requirement. Although applicants should have been in contact with FWS from the beginning of the process, the PPQ determines if the applicant must conduct a formal consultation with the agency at this point in the process.

Once the applicant completes the FWS consultation, the PPQ incorporates the response from the FWS into the EA and makes any necessary final changes. The USDA Office of General Counsel (OGC) reviews the EA to ensure it meets all legal standards. Once the OGC approves the EA, the PPQ publishes a 30-day notice of availability of the EA in the Federal Register to allow the public to comment on the proposed action. After considering the comments, the PPQ performs one of the following actions:

- Issues the release permit
- Advises the applicant that an environmental impact statement must be prepared
- Advises the applicant to discontinue the project

This entire process might take many months or even years to complete, but it's just the beginning. Once released, it typically takes several years for biological control agents to establish themselves and make an impact on the environment. During this time the scientists continually monitor the progress and collect data on the efficacy of the activity.

The National Environmental Policy Act of 1969, as amended

Title 42, Chapter 55, Section 4331...

(b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may —

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

4. preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;

5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

You can view the entire National Environmental Policy Act online at http://www4.law.cornell.edu/uscode/42/ch55.html

IPRL says goodbye to Dr. Steven Franks

Dr. Steven Franks came to the IPRL in 2003 as a post-doctoral temporary appointment to work on the TAME Melaleuca area-wide integrated pest management project. Steve devoted much of his time to investigating the population and evolutionary dynamics of the invasive exotic tree *Melaleuca quinquenervia* in response to melaleuca psyllids and weevils, which were introduced as biological control agents in south Florida.

Steve brought a wide variety of experience and expertise to the IPRL, especially in the areas of population genetics and plant ecology.

***Dr. Steve Franks collecting samples for research on* Melaleuca quinquenervia**

Steve received his Ph.D. in Botany from the University of Georgia in 2002. Steve has moved on to the Department of Ecology and Evolutionary Biology at the University of California, Irvine, where he will be using quantitative genetics to study plant life in the region.

All at the IPRL wish Steve the best of luck in his new endeavors. He will be greatly missed.

Web Sites You May Want to Visit

To learn more about invasive plants and what various organizations are doing about them, visit the following sites on the internet.

Agricultural Research Service
www.ars.usda.gov/

Center for Exotic and Invasive Plants
plants.ifas.ufl.edu

Federal Noxious Weed Program
www.aphis.usda.gov/ppq/weeds

Florida Department of Agriculture, Department of Plant Industry
www.doacs.state.fl.us/~pi/index.html

Florida Department of Environmental Protection, Bureau of Invasive Plant Management
www.dep.state.fl.us/lands/invaspec/

Florida Exotic Pest Plant Council
www.fleppc.org

Invasive Plant Research Laboratory
www.weedbiocontrol.org/

The National Agricultural Library's Invasive Species website
www.invasivespecies.gov

National Noxious Weed Program
http://dogwood.itc.nrcs.usda.gov/weeds

South Florida Water Management District
www.sfwmd.gov

Southwest Florida Water Management District
www.swfwmd.state.fl.us/

TAME Melaleuca Project
http://tame.ifas.ufl.edu

The Nature Conservancy
http://nature.org/

Picture of the Month

Biological technician Willey Durden collecting invasive plant samples from a canal near Pahokee, Florida. The canal is choked with alligatorweed, water hyacinth, and water lettuce. Willey is using water shoes to navigate through the thick mat of plants without sinking into the canal.

Photo by Paul Pratt

Site of the Month

A new University of Florida, Institute for Food and Agricultural Sciences (IFAS) Electronic Data Information Source (EDIS) publication on biological control containment facilities is available at the following link:

http://edis.ifas.ufl.edu/IN509

EDIS publications on a wide variety of topics are available at:

http://edis.ifas.ufl.edu.

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More upcoming events

24th International Symposium of the North American Lake Management Society
November 3-5, 2004
Victoria Conference Centre
Victoria, British Columbia
www.nalms.org/symposia/symposia.htm

National Conference on Ecosystem Restoration
December 6-10, 2004
Wyndham Palace Hotel
Lake Bueno Vista, Florida
http://conference.ifas.ufl.edu/ecosystem/

66th Annual Meeting of the Association of Southeastern Biologists (ASB)
April 13-15, 2005
Florence, Alabama
www.asb.appstate.edu

The Society for Conservation Biology
Annual Meeting
July 15-19, 2005
Brasilia, Brazil
www.conbio.org/2005

Aquatic Weed Control Short Course 2005
May 16-20, 2005
Fort Lauderdale Marriott North
Ft. Lauderdale, Florida
http://conference.ifas.ufl.edu/aw/

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Previous reports are available online at:
http://tame.ifas.ufl.edu/html/publications.htm

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